AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions of claims in the application:

Listing of Claims:

1. (Previously presented) A method comprising:

employing a processor executing computer-readable instructions to perform the following acts:

identifying a change in a return link signal quality at a gateway for a return link from a terminal communicatively coupled to the gateway through a satellite, the return link being shared by a plurality of terminals having an interference relationship, wherein the identifying the change in the return link signal quality comprises:

identifying a change in a signal-to-noise ratio for the return link from the terminal; and

interpreting the change in the signal-to-noise ratio as indicating the change in the return link signal quality;

receiving a feedback signal at the terminal, from the gateway, the feedback signal indicating at least one of the signal-to-noise ratio for the return link as measured at the gateway or the change in the signal-to-noise ratio for the return link as measured at the gateway; and

adjusting a data rate, at the terminal, based, in part, on a determination made at the terminal to adjust the data rate to correct for degradation of the return link signal quality, for a message sent from the terminal through the return link based on the change in the return link signal quality, without changing link power levels and an interference relationship among the plurality of terminals, wherein the identifying the change in the return link signal and the adjusting the data rate are performed during a transmission of and a reception of the message.

2-3. (Cancelled)

4. (Previously Presented) The method of claim 1, wherein the signal-to-noise ratio for the return link includes thermal noise and interference.

5. (Cancelled)

6. (Previously presented) The method of claim 1, wherein the identifying the change in the signal-to-noise ratio for the return link comprises:

measuring a forward link signal-to-noise ratio at the terminal for a forward link from the gateway through the satellite to the terminal; and

approximating the signal-to-noise ratio for the return link at the gateway based on the forward link signal-to-noise ratio.

7. (Previously presented) The method of claim 1, wherein the adjusting the data rate comprises:

reducing the data rate if the signal-to-noise ratio for the return link is less than a first threshold; and

increasing the data rate if the signal-to-noise ratio for the return link is greater than a second threshold.

8. (Previously presented) The method of claim 1, wherein the adjusting the data rate comprises:

transmitting a bit of the message for a first duration of time to reduce the data rate; and

transmitting a bit of the message for a second duration of time to increase the data rate, the first duration of time being greater than the second duration of time.

9. (Previously presented) The method of claim 1, wherein the adjusting the data rate comprises adjusting the data rate to one of a set of discrete data rate-to-carrier bandwidth ratios.

10. (Cancelled).

11. (Previously presented) The method of claim 1, wherein the adjusting the data rate comprises:

applying a first coding rate to bits of the message to increase the data rate; and

applying a second coding rate to bits of the message to reduce the data rate, the first coding rate being greater than the second coding rate.

12. (Previously presented) The method of claim 11, wherein the adjusting the data rate further comprises:

transmitting a bit of the message for a first duration of time to further reduce the data rate; and

transmitting a bit of the message for a second duration of time to further increase the data rate, the first duration of time being greater than the second duration of time.

13. (Cancelled).

14. (Previously Presented) The method of claim 1, wherein the return link comprises a code division multiple access (CDMA) channel.

15. (Previously presented) The method of claim 1, wherein the return link comprises a current messaging time slot among a plurality of time slots in a series of time frames, the method further comprising:

suspending the message if the current messaging time slot in a current time frame expires before the message is complete; and

resuming the message in a messaging time slot subsequent to the current messaging time slot in a time frame subsequent to the current time frame.

16. (Previously presented) The method of claim 15, wherein the resuming the message comprises resuming the message at a beginning of the messaging time slot subsequent to the current messaging time slot in the time frame subsequent to the current time frame.

17. (Previously presented) The method of claim 1, wherein the return link comprises a messaging time slot among a plurality of time slots in a series of time frames, the method further comprising initiating the message at a random time within the messaging time slot.

18. (Previously presented) The method of claim 1, wherein the return link comprises a messaging time slot among a plurality of time slots in a series of time frames, the method further comprising:

determining that a duration of the message is greater than a selected number of durations of the messaging time slot; and

transmitting the message for a transmission duration greater than a duration of the messaging time slot, wherein the message is transmitted until a transmission of the message is complete.

19. (Previously presented) The method of claim 18, wherein the determining that the duration of the message is greater than the selected number of durations of the messaging time slot comprises:

comparing the duration of the message at a current data rate to a length threshold, the length threshold being indicative of the selected number of durations of the messaging time slot.

20. (Previously presented) The method of claim 18, wherein the determining that the duration of the message is greater than the selected number of durations of the messaging time slot comprises:

comparing a data rate-to-bandwidth ratio for the message to a threshold data rate-to-bandwidth ratio.

21. (Currently amended) An apparatus comprising:

means for identifying a change in a return link signal quality at a gateway for a return link between a terminal and a gateway, the return link being shared by a plurality of terminals having an interference relationship, wherein the means for identifying the change in the return link signal quality comprises:

means for identifying a change in a signal-to-noise ratio for the return link from the terminal, the means for identifying a change in a signal-to-noise ratio comprising:

means for measuring a forward link signal-to-noise ratio at the terminal for a forward link from the gateway through [[the]] a satellite to the terminal; and

means for approximating the signal-to-noise ratio for the return link at the gateway based on the forward link signal-to-noise ratio; and

means for interpreting the change in the signal-to-noise ratio for the return link as indicating the change in the return link signal quality;

means for receiving a feedback signal at the terminal, from the gateway, the feedback signal indicating at least one of the signal-to-noise ratio for the return link as measured at the gateway or the change in the return link signal-to-noise ratio as measured at the gateway; and

means for adjusting a data rate, at the terminal, based, in part, on a determination made at the terminal to adjust the data rate to correct for degradation of the return link signal quality, for a message sent from the terminal through the return link based on the change in the return link signal quality without changing link power levels and an interference relationship among the plurality of terminals.

22-24. (Cancelled)

25. (Previously Presented) The apparatus of claim 21, wherein the means for adjusting the data rate comprises:

means for reducing the data rate if the signal-to-noise ratio for the return link is less than a first threshold; and

means for increasing the data rate if the signal-to-noise ratio for the return link is greater than a second threshold.

26. (Previously Presented) The apparatus of claim 21, wherein the means for adjusting the data rate comprises:

means for transmitting a bit of the message for a first duration of time to reduce the data rate; and

means for transmitting a bit of the message for a second duration of time to increase the data rate, the first duration of time being greater than the second duration of time.

27. (Previously Presented) The apparatus of claim 21, wherein the means for adjusting the data rate comprises:

means for applying a first coding rate to bits of the message to increase the data rate; and

means for applying a second coding rate to bits of the message to reduce the data rate, the first coding rate being greater than the second coding rate.

28. (Previously Presented) The apparatus of claim 27, wherein the means for adjusting the data rate further comprises:

means for transmitting a bit of the message for a first duration of time to further reduce the data rate; and

means for transmitting a bit of the message for a second duration of time to further increase the data rate, the first duration of time being greater than the second duration of time.

29. (Previously Presented) The apparatus of claim 21, wherein the means for adjusting the data rate comprises means for adjusting the data rate to one of a set of discrete data rate-to-carrier bandwidth ratios.

30-31. (Cancelled).

32. (Previously presented) The apparatus of claim 21, wherein the return link comprises a current messaging time slot among a plurality of time slots in a series of time frames, the apparatus further comprising:

means for suspending the message if the current messaging time slot in a current time frame expires before the message is complete; and

means for resuming the message in a messaging time slot subsequent to the current messaging time slot in a time frame subsequent to the current time frame.

33. (Previously Presented) The apparatus of claim 32, wherein the means for resuming the message comprises means for resuming the message at a beginning of the messaging time slot subsequent to the current messaging time slot in the time frame subsequent to the current time frame.

34. (Previously presented) The apparatus of claim 21, wherein the return link comprises a messaging time slot among a plurality of time slots in a series of time frames, the apparatus further comprising means for initiating the message at a random time within the messaging time slot.

35. (Previously presented) The apparatus of claim 21, wherein the return link comprises a messaging time slot among a plurality of time slots in a series of time frames, the apparatus further comprising:

means for determining that a duration of the message is greater than a selected number of durations of the messaging time slot; and

means for transmitting the message for a transmission duration greater than a duration of the messaging time slot, wherein the message is transmitted until its transmission is complete.

36. (Previously Presented) The apparatus of claim 35, wherein the means for determining that the duration of the message is greater than a selected number of durations of the messaging time slot comprises:

means for comparing the duration of the message at a current data rate to a length threshold, the length threshold being indicative of the selected number of durations of the messaging time slot.

37. (Previously Presented) The apparatus of claim 35, wherein the means for determining that the duration of the message is greater than a selected number of durations of the messaging time slot comprises:

means for comparing a current data rate-to-bandwidth ratio for the message to a threshold data rate-to-bandwidth ratio.

38. (Previously presented) An apparatus comprising:

a comparator configured to identify a change in a return link signal quality at a gateway for a return link from a terminal communicatively coupled to the gateway through a satellite, the return link being shared by a plurality of terminals having an interference relationship, wherein identifying the change in the return link signal quality comprises:

identifying a change in a signal-to-noise ratio for the return link from the terminal; and

interpreting the change in the signal-to-noise ratio as indicating the change in the return link signal quality; and

a data rate generator configured to adjust a data rate, at the terminal, based, in part, on a determination made at the terminal to adjust the data rate to correct for degradation of the return link signal quality, for a message sent from the terminal through the return link based on the change in the return link signal quality without changing link power levels and the interference relationship among the plurality of terminals,

wherein the data rate generator is configured to receive a feedback signal, at a terminal feedback input, from the gateway, the feedback signal indicating at least one of the signal-to-noise ratio for the return link as measured at the gateway or the change in the signal-to-noise ratio for the return link as measured at the gateway, wherein the identifying the change in the return link signal and the adjusting the data rate are performed during a transmission of and a reception of the message.

39-40. (Cancelled)

41. (Previously Presented) The apparatus of claim 38, wherein the comparator comprises:

a signal-to-noise detector configured to measure a forward link signal-to-noise ratio at the terminal for a forward link from the gateway through the satellite to the terminal; and

a logic block configured to approximate the signal-to-noise ratio for the return link at the gateway based on the forward link signal-to-noise ratio.

42. (Previously Presented) The apparatus of claim 38, wherein the data rate generator is configured to reduce the data rate if the signal-to-noise ratio for the return link is less than a first threshold, and increase the data rate if the signal-to-noise ratio for the return link is greater than a second threshold.

43. (Previously Presented) The apparatus of claim 38, wherein the data rate generator is configured to transmit a bit of the message for a first duration of time to reduce the data rate, and transmit a bit of the message for a second duration of time to increase the data rate, the first duration of time being greater than the second duration of time.

44. (Previously Presented) The apparatus of claim 38, wherein the data rate generator is configured to encode a bit of the message at a first code rate to reduce the data rate, and encode a bit of the message at a second code rate to increase the data rate, the first code rate being greater than the second code rate.

45. (Previously presented) The apparatus of claim 38, wherein the return link comprises a current messaging time slot among a plurality of time slots in a series of time frames, and wherein the data rate generator is configured to suspend the message if the current messaging time slot in a current time frame expires before completion of the message, and resume the message in a messaging time slot subsequent to the current messaging time slot in a time frame subsequent to the current time frame.

46. (Previously presented) The apparatus of claim 38, wherein the return link comprises a messaging time slot among a plurality of time slots in a series of time frames, and wherein the data rate generator is configured to determine that a duration of the message is greater than a selected number of durations of the messaging time slot, and transmit the message for a transmission duration greater than a duration of the messaging time slot, wherein the message is transmitted until a transmission of the message is complete.

47. (Previously Presented) The apparatus of claim 38, wherein the data rate generator comprises:

a threshold comparator configured to compare a duration of the message at a current data rate to a length threshold, the length threshold being indicative of the selected number of durations of the messaging time slot.

48. (Previously Presented) The apparatus of claim 38, wherein the data rate generator comprises:

a threshold comparator configured to compare a current data rate-to-bandwidth ratio for the message to a threshold data rate-to-bandwidth ratio.

49. (Previously presented) A machine-readable storage medium having stored thereon machine-executable instructions adapted for causing a machine to perform a method comprising:

identifying a change in a return link signal quality at a gateway for a return link from a terminal communicatively coupled to the gateway through a satellite, the return link being shared by a plurality of terminals having an interference relationship, wherein identifying the change in the return link signal quality comprises:

identifying a change in a signal-to-noise ratio for the return link from the terminal; and

interpreting the change in the signal-to-noise ratio as indicating the change in the return link signal quality;

receiving a feedback signal at the terminal, from the gateway, the feedback signal indicating at least one of the signal-to-noise ratio for the return link as measured at the gateway or the change in the signal-to-noise ratio for the return link as measured at the gateway; and

adjusting a data rate, at the terminal, based, in part, on a determination made at the terminal to adjust the data rate to correct for degradation of the return link signal quality, for a message sent from the terminal through the return link based on the change in the return link signal quality without changing link power levels and the interference relationship among the plurality of terminals,

wherein the return link comprises a messaging time slot among a plurality of time slots in a series of time frames, and the message is initiated at a random time within the messaging time slot.

50-51. (Cancelled)

52. (Previously presented) The machine-readable storage medium of claim 49, wherein the machine-executable instructions are further adapted for causing the machine to perform a method comprising:

measuring a forward link signal-to-noise ratio at the terminal for a forward link from the gateway through the satellite to the terminal; and

approximating the signal-to-noise ratio for the return link at the gateway based on the forward link signal-to-noise ratio.

53. (Previously presented) The machine-readable storage medium of claim 49, wherein the machine-executable instructions are further adapted for causing the machine to perform a method comprising:

reducing the data rate if the signal-to-noise ratio for the return link is less than a first threshold; and

increasing the data rate if the signal-to-noise ratio for the return link is greater than a second threshold.

54. (Cancelled).

55. (Previously presented) The machine-readable storage medium of claim 49, wherein the machine-executable instructions are further adapted for causing the machine to perform a method comprising:

transmitting a bit of the message for a first duration of time to reduce the data rate; and

transmitting a bit of the message for a second duration of time to increase the data rate, the first duration of time being greater than the second duration of time.

56. (Previously presented) The machine-readable storage medium of claim 49, wherein the machine-executable instructions are further adapted for causing the machine to perform a method comprising:

adjusting the data rate to one of a set of discrete data rate-to-carrier bandwidth ratios.

57. (Previously presented) The machine-readable storage medium of claim 49, wherein the return link comprises a current messaging time slot among a plurality of time slots in a series of time frames, and wherein the machine-executable instructions are further adapted for causing the machine to perform a method comprising:

suspending the message if the current messaging time slot in a current time frame in the series of time frames expires before the message is complete; and

resuming the message in a messaging time slot subsequent to the current messaging time slot in a time frame subsequent to the current time frame.

58. (Previously presented) The machine-readable storage medium of claim 57, wherein the machine-executable instructions are further adapted for causing the machine to perform a method comprising:

resuming the message at a beginning of the messaging time slot subsequent to the current messaging time slot in the time frame subsequent to the current time frame.

59. (Previously presented) The machine-readable storage medium of claim 49, wherein the machine-executable instructions are further adapted for causing the machine to perform a method comprising:

determining that a duration of the message is greater than a selected number of durations of a messaging time slot in the return link among a plurality of time slots in a series of time frames forming the return link; and

transmitting the message for a transmission duration greater than a duration of the messaging time slot, wherein the message is transmitted until its transmission is complete.